

Teaching plan: two teachers

This is a plan for teaching AS and A-level Chemistry (two teachers) from September 2015. The number of weeks is based on each teacher taking half of the timetabled lessons.

Year 1

Teacher A

Specification ref	Topic	Content	Practical	No. of weeks
3.1.1	Atomic structure	Physical (P)		3.0
3.1.2	Amount of substance	P	1 Make up a volumetric solution and carry out a simple acid-base titration	9.0
3.1.4	Energetics	P	2 Measurement of an enthalpy change	7.0
3.1.6	Chemical equilibria and Le Chatelier's principle and K_c	P		4.0
3.1.7	Oxidation reduction and redox equations	P		2.0
3.2.2	Group 2, the alkaline earth metals	Inorganic (I)		2.0
3.2.3	Group 7(17), the halogens	I	4 Carry out simple test-tube reactions to identify cations and anions in aqueous solution	3.0
3.2.1	Periodicity	I		1.0
				Total: 31.0

Teacher B

Specification ref	Topic	Content	Practical	No. of weeks
3.1.3	Bonding	P		6.4
3.1.5	Kinetics	P	3 Investigation of how the rate of a reaction changes with temperature	3.0
3.3.1	Introduction to organic chemistry	Organic (O)		4.0
3.3.2	Alkanes	O		2.8
3.3.3	Halogenoalkanes	O		4.0
3.3.4	Alkenes	O		3.8
3.3.5	Alcohols	O	5 Distillation of a product from a reaction	4.0
3.3.6	Organic analysis	O	6 Tests for alcohol, aldehyde, alkene and carboxylic acid	3.0
				Total: 31.0

Year 2

Teacher A

Specification ref	Topic	Content	Practical	No. of weeks
3.1.8	Thermodynamics	P		6.0
3.1.12	Acids and Bases	P	9 Investigate how pH changes when a weak acid reacts with a strong base and when a strong acid reacts with a weak base	6.0
3.1.11	Electrode potentials and electrochemical cells	P	8 Measuring the EMF of an electrochemical cell	5.0
3.2.5	Transition metals	I		11.0
3.2.6	Reactions of ions in aqueous Solution	I	11 Carry out simple test-tube reactions to identify transition metal ions in aqueous solution	2.6
3.2.4	Properties of Period 3 elements and their oxides	I		1.4
				Total: 32.0

Teacher B

Specification ref	Topic	Content	Practical	No. of weeks
3.3.7	Optical isomerism	O		0.8
3.3.8	Aldehydes and ketones	O		1.4
3.3.9	Carboxylic acids and derivatives	O	10 Preparation of a pure organic solid and test its purity a pure organic liquid	7.0
3.1.9	Rate equations	P	7 Measuring the rate of a reaction by an initial rate method by a continuous monitoring method	5.0
3.3.10	Aromatic chemistry	O		2.4
3.3.11	Amines	O		1.8
3.3.12	Polymers	O		1.4
3.3.13	Amino acids, proteins and DNA	O		3.0
3.1.10	Equilibrium constant K_p for homogeneous systems	P		2.0
3.3.15	Nuclear magnetic resonance spectroscopy	O		4.0
3.3.16	Chromatography	O	12 Separation of species by thin-layer chromatography	1.2
3.3.14	Organic synthesis	O		2.0
				Total: 32.0